

**CLAIMS:**

1. A system for noninvasive measuring of a conductivity in a volume, said system comprising magnetic means arranged as a resonant circuit, said magnetic means being arranged to induce an oscillating magnetic field in said volume, said system further comprising power supply means connectable to said magnetic means, said power supply means being arranged to provide a signal characteristic to a power loss of said resonant circuit upon an application of said magnetic field to said volume, characterized in that the magnetic means are integrated into an insulating fabric carrier.

2. A system according to claim 1, characterized in that the system comprises further magnetic means arranged as a further resonant circuit, said further magnetic means being arranged in a vicinity of a further volume in order to provide a reference signal.

3. A system for monitoring a condition of a user, said system comprising:  
- sensing means arranged to be located in a vicinity of a target volume of the  
15 user for detecting information representative to the user's condition, said sensing means comprising:

- magnetic means arranged as a resonant circuit, said magnetic means being arranged to induce an oscillating magnetic field in said target volume, the magnetic means being integrated into an insulating fabric carrier,

20 - power supply means connectable to said magnetic means, said power supply means being arranged to provide a signal characteristic to a power loss of said resonant circuit upon an application of said oscillating magnetic field to said target volume,

- detection means actuatable by said sensing means, said detection means being arranged to process said signal in order to derive said information.

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4. A system according to claim 3, characterized in that said insulating fabric carrier is a part of clothing.

5. A system according to claim 3, characterized in that said insulating fabric carrier is a part of a bed sheet.

6. A system according to claim 3, characterized in that said insulating fabric  
5 carrier is a part of a safety belt.

7. A system according to claim 3, characterized in that said insulating fabric carrier is a part of a furniture piece.

10 8. A system according to claim 3, characterized in that the system comprises further sensing means arranged to be located in a vicinity of a further volume in order to provide a reference signal.

15 9. A system according to claim 8, characterized in that the further sensing means comprise further magnetic means arranged as a resonant circuit, said further magnetic means being arranged to induce an oscillating magnetic field in said further volume.

10. A system according to any one of the preceding claims 3 to 9, characterised in that the target volume comprises a heart of the user.

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11. An alarm system arranged for alarming upon a disorder in a condition of a user, said alarm system comprising:

- sensing means arranged to be located in a vicinity of a target volume of the user for detecting information representative to the user's condition, said sensing means comprising magnetic means arranged as a resonant circuit, said magnetic means being arranged to induce an oscillating magnetic field in said target volume, the magnetic means being integrated into an insulating fabric carrier,

- power supply means connectable to said sensing means, said power supply means being arranged to provide a signal characteristic to a power loss of said resonant circuit upon an application of said oscillating magnetic field to said target volume,

- detection means actuatable by said sensing means, said detection means being arranged to process said signal in order to derive said information,

- alarm means actuatable by the detection means, said alarm means being arranged to trigger an alarm signal upon detection of said information by the detection means.

5 12. An alarm system according to claim 11, said alarm system comprising transmission means arranged to transmit the alarm signal to a remote station responsive to said alarm signal.

10 13. Sensing means for use in a system according to any one of the preceding claims, said sensing means comprise magnetic means arranged as a resonant circuit, said magnetic means being conceived to induce an oscillating magnetic field in a volume under investigation, said sensing means being further conceived to be connectable to a power supply means, said sensing means being integrated into an insulating fabric carrier.

15 14. Sensing means according to claim 12, wherein said fabric carrier comprises threads of fabric, characterized in that the magnetic means comprise a loop of a conductive material, said conductive material being interwoven with said threads of fabric.